Draft Market Performance Metrics Report:

An Alberta Department of Energy

Report and Discussion Paper

July 22, 2005

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1. Introduction

On November 26, 2004, the Alberta Department of Energy (the Department) released a discussion paper suggesting seven different market performance metrics that should be collected regularly to measure the development of a competitive retail electricity market:

Retail Market Performance Metrics	Definition	Rationale
Number of retailers	Both total number and number of active retailers recruiting customers from all customer classes jurisdiction wide.	To be able to have a competitive retail market there has to be a number of active retailers.
Product offering diversity	How many different types of products are offered in the market.	Different customers have different needs, so there has to be a number of product offerings to create a competitive market.
Price spread	Price spread for comparable products from different retailers.	If there is a big price spread between comparable products, it is a sign of a dysfunctional market. If the price spread is very small it could be a sign of price cooperation.
Customer switching	Percentage of customers switching away from the regulated rate (both by number and energy load).	High percentage of customers signing competitive contracts is a sign that there is a competitive market.
Customer churn	Percentage of total customer base that switched retailer within the last 12 months.	There has to be some activity in the market before one can call it a competitive market.
Market concentration	Market share for top three retailers.	If the market concentration were high, the dominant retailers would have the opportunity to retaliate against a retailer who decides to compete aggressively. Thus, mutual behaviour by long-term rivals may be conducive to tacit collusion. This could lead to weakened price competition and increased entry barriers.
Retailers' profit margin	Both commodity mark-up and overall profit margin.	The profit margin would be an indication of how competitive the market is.

Table 1: Suggested retail market performance metrics.

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The Department received comments from stakeholders on these metrics in December 2004 and January 2005. In February 2005 the DOE presented a summary of stakeholder comments and preliminary conclusions to stakeholders. The preliminary conclusion was the selection of five market performance metrics that would be pilot tested in the spring of 2005.

The five selected market performance metrics were the following:

1.	Number of retailers
2.	Product offering diversity
3.	Number of customers switching away from either a regulated rate or a non-affiliated retailer
4.	Market concentration
5.	Retailers' market margin

Table 2: Selected Market Performance Metrics.

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2. Market Performance Metrics for the Pilot Period

The Department has tested the five selected metrics for the period January to June 2005. Below is a more detailed definition of the metrics and a graph showing the data for the pilot test period.

At this point the Department is interested in comments or suggestions on how to improve the measurement of these five metrics.

2.1 Number of Retailers

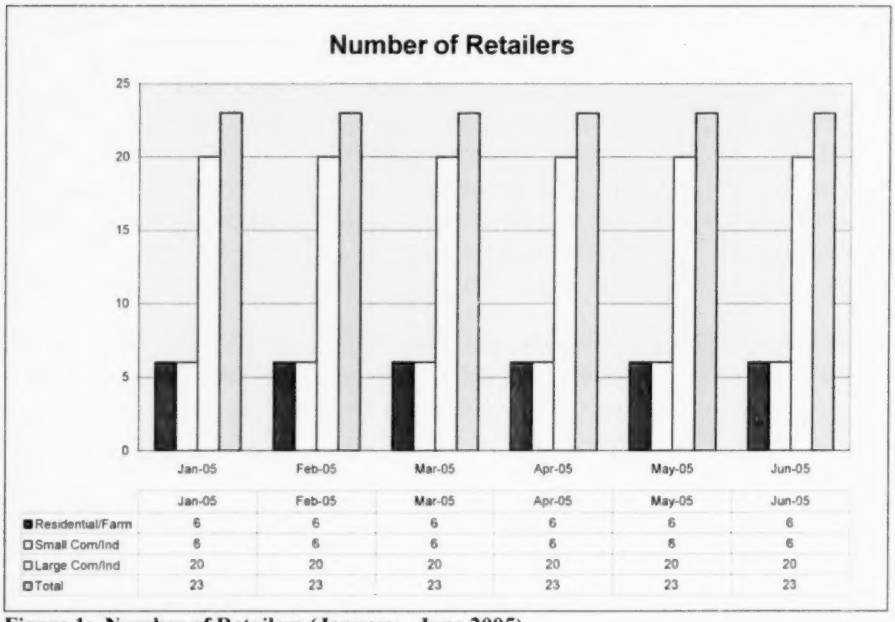
Definition

These four numbers are required for this metric:

1. Number of retailers serving residential and farm customers
2. Number or retailers serving small commercial/Industrial customers (below 250 MWh per year)
3. Number or retailers serving large commercial/Industrial customers (above 250 MWh per year)
4. Total number of retailers.

Source

The source is the customerchoice web-site's list of retailers:
http://www.customerchoice.gov.ab.ca/Who_Provides-Competitive_Search.html



	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05
Residential/Farm	6	6	6	6	6	6
Small Com/Ind	6	6	6	6	6	6
Large Com/Ind	20	20	20	20	20	20
Total	23	23	23	23	23	23

Figure 1: Number of Retailers (January - June 2005).

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2.2 Product Offering Diversity

Definition

Only standard product offerings for residential customers will be tracked for this metric. There are basically seven main product offerings to keep track of:

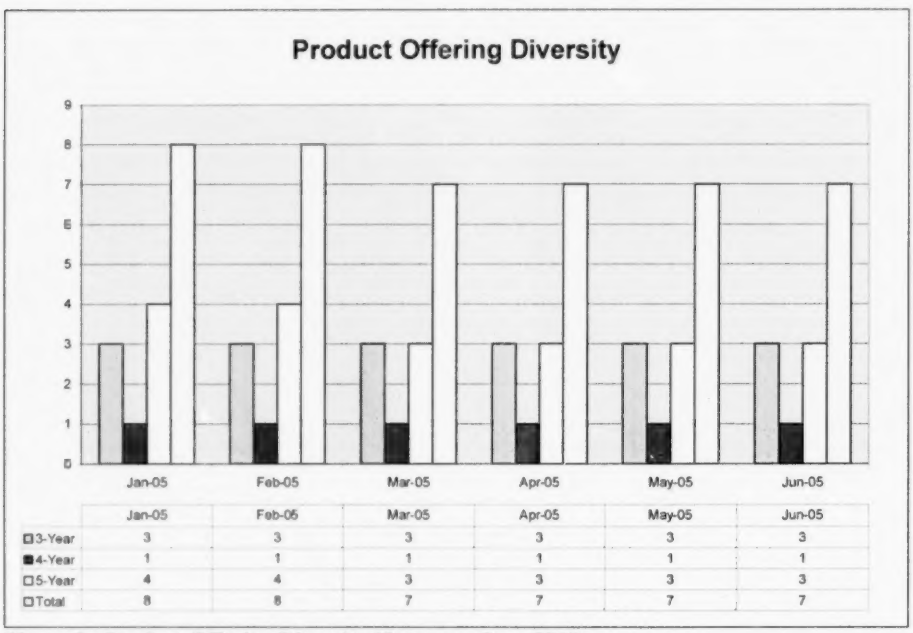
Flow-through
Variable rate
1-year contracts
2-year contracts
3-year contracts
4-year contracts
5-year contracts

Table 1: Types of product offerings.

The numbers in the metric will be representing the total number of product offerings the retailers are offering collectively. For example, if one retailer offer two different rates for 5-year contracts, and another company offers one rate for 5-year contracts, this will be counted as three product offerings.

Source

The source is the customerchoice web-site: http://wcw.enr.gov.ab.ca/Rates-Current.html



	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05
3-Year	3	3	3	3	3	3
4-Year	1	1	1	1	1	1
5-Year	4	4	3	3	3	3
Total	8	8	7	7	7	7

Figure 2: Product Offering Diversity (January - June 2005).

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2.3 Customer Switching

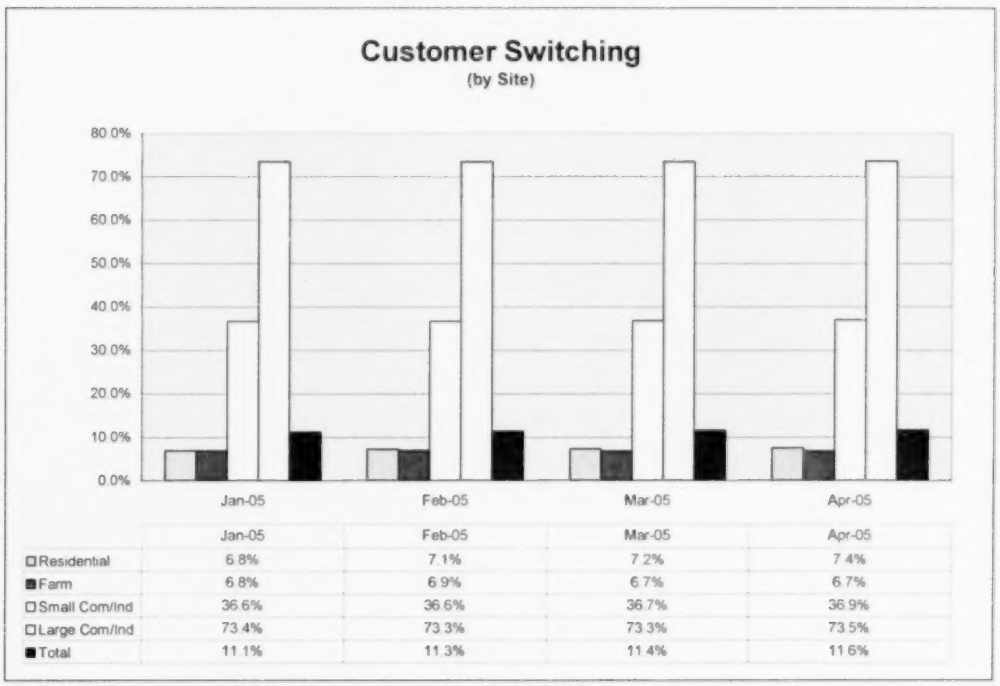
Definition

The following data is required for this metric:

1. Percentage of residential customers switched away from the RRO by site
2. Percentage of farm customers switched away from the RRO by site
3. Percentage of small commercial customers (less than 250 MWh per/year) switched away from the RRO by site
4. Percentage of large commercial/industrial customers (above 250 MWh per/year) switched away from the regulated rate provider's default rate by site
5. Percentage of overall total customers switched away from the regulated rate provider's services by site

Source

The source is data reported by the wire-service providers to the Department.



	Jan-05	Feb-05	Mar-05	Apr-05
Residential	6.8%	7.1%	7.2%	7.4%
Farm	6.8%	6.9%	6.7%	6.7%
Small Com/Ind	36.6%	36.6%	36.7%	36.9%
Large Com/Ind	73.4%	73.3%	73.3%	73.5%
Total	11.1%	11.3%	11.4%	11.6%

Figure 3: Customer switching by site (January - April 2005).

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2.4 Market Concentration

Definition

The following data is required for this metric:

1. Market Share by load of the three largest retailers serving residential customers
2. Market Share by load of the three largest retailers serving farm customers
3. Market Share by load of the three largest retailers serving small commercial/industrial customers (less than 250 MWh/year)
4. Market Share by load of the three largest retailers serving large commercial/industrial customers (above 250 MWh/year)
5. Overall total market share by load of the three largest retailers

Source

The source is Alberta Market Surveillance Administrator (MSA) reporting.

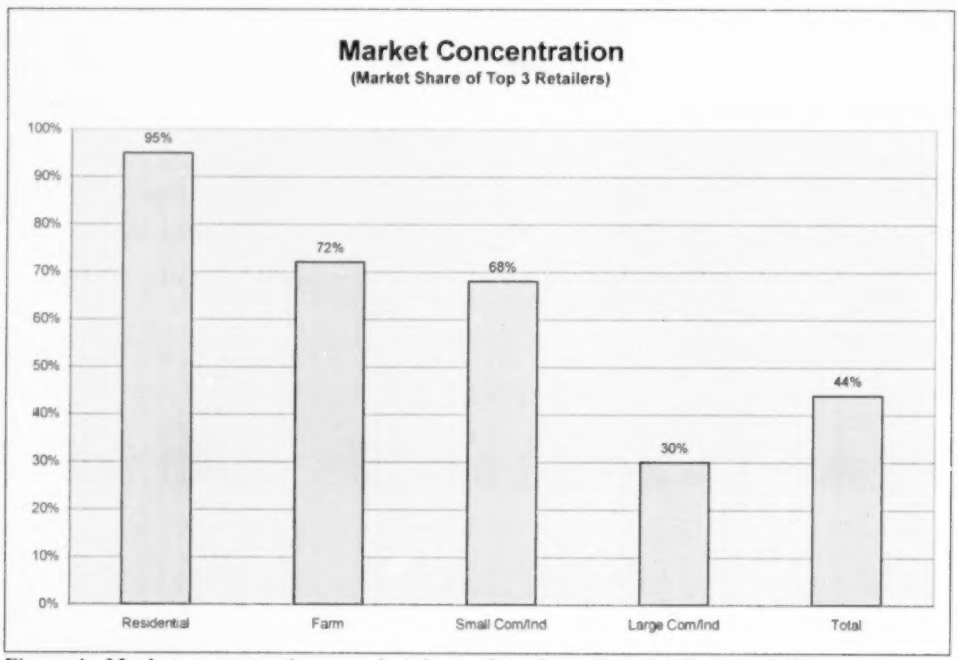

Figure 4: Market concentration - market share of top 3 retailers (1st Quarter 2005).

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2.5 Retailer's Market Margin

Definition

This metric compares the wholesale market forward rate for 3-year contracts to the prices retailers are offering to residential customers. Due to lack of available data about forward rates for 4 and 5-year contracts, these contracts will not be included in this metric.

The metric is calculated by taking the price offered to residential customers minus the wholesale market 7x24 forward price which equals the market margin. It does not adjust the wholesale price for load shape.

Calculation of Retail Price:

Straight average of all the 3-year offerings in the market.

Month	Retailer 1		Retailer 2				Average Price	
	Electricity Only		Dual Fuel		Electricity Only			
	3 Year	5 Year	3 Year	5 Year	3 Year	5 Year	3-Year	5-Year
Jan-05	6.8	6.7	7.4	7.2	7.5	7.3	7.2	7.1
Feb-05	7.1	7.0	7.4	7.2	7.5	7.3	7.3	7.2
Mar-05	7.2	7.1	7.7	7.5	7.8	na	7.6	7.3
Apr-05	7.3	7.1	7.7	7.6	7.8	na	7.6	7.4
May-05	7.4	7.3	7.5	7.1	7.5	na	7.5	7.2
Jun-05	7.4	7.5	8.0	7.6	8.0	na	7.8	7.6

Table 2: Example of calculation of the retail price.

Calculation of Forward Price:

Average of forward prices for the next 3 years based on the forward prices for the first 15 days of the month prior to the retail price.

Feb 2005:	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	Weight	Average	W. Avrg
Mar-05	47.25	47.75	46.00	46.50	na	na	46.00	46.00	46.15	45.75	44.25	na	na	43.50	44.10	2.8%	45.75	1.28
Apr-05	45.75	47.00	45.75	45.75	na	na	45.25	45.00	45.40	46.25	43.50	na	na	43.25	43.75	2.8%	45.15	1.26
May-05	46.25	47.35	46.25	46.15	na	na	45.75	45.75	46.40	47.25	46.50	na	na	46.25	46.35	2.8%	46.39	1.29
Jun-05	46.25	47.35	46.25	46.15	na	na	45.75	45.75	46.40	47.25	46.50	na	na	46.25	46.35	2.8%	46.39	1.29
Q3 05	54.08	54.53	53.50	54.08	na	na	53.50	53.38	53.90	53.75	53.08	na	na	52.83	53.33	8.3%	53.55	4.46
Q4 05	54.92	55.50	55.08	55.35	na	na	54.75	54.63	54.60	54.50	53.75	na	na	53.50	53.98	8.3%	54.60	4.55
Cal 06	50.34	50.51	50.23	50.33	na	na	50.23	50.23	50.83	50.98	50.50	na	na	50.46	50.65	33.3%	50.46	16.83
Cal 07	49.20	49.74	49.44	49.28	na	na	49.19	49.24	49.80	49.59	49.48	na	na	49.46	49.64	33.3%	49.44	16.48
Cal 08	48.10	48.60	48.40	48.35	na	na	48.25	48.20	48.15	48.25	48.00	na	na	48.40	47.80	16.7%	48.23	8.02
Wghtd Avrg																100.0%		50.10

Table 3: Example of calculation of the forward price for retail contracts sold in March 2005 based on forward rates for the 15 first days of February 2005.[1]

The market margin for March 2005 is calculated based on Table 2 and Table 3. The average retail price for 3-year contracts in March 2005 is 7.6 ¢/kWh. The forward price that makes up the basis for this retail price is 5.01 ¢/kWh. Therefore, the market margin for March 2005 will be 2.6 ¢/kWh.

[1] Depending on the activity in the market, one could expect that a retailer would have to pay an extra $1-$2 pr. MWh since the retailer is initiating the transaction. In other words, the retailer would have to cross the bid-offer spread by $1-$2 per MWh to be able to initiate the transaction. This can reduce the retailers' market margin 0.1-0.2 ¢/kWh.

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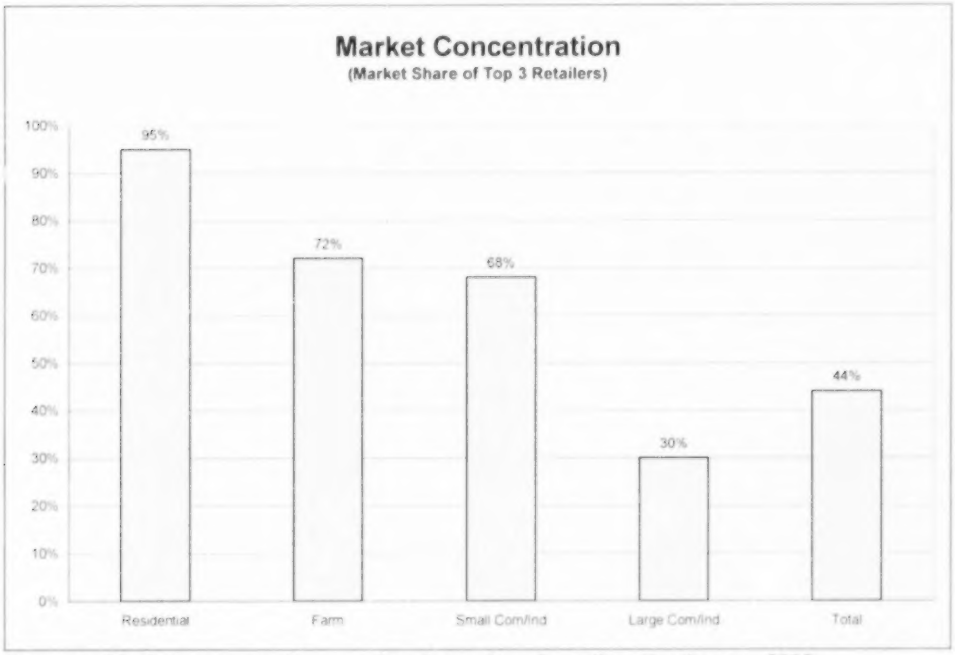

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Apr-05	47.00	47.00	47.00	47.00	n/a	n/a	47.00	47.00	47.00	47.00	47.00	n/a	n/a	47.00	47.00	6.67 %	47.00	3.13
May-05	46.00	47.00	46.00	46.00	n/a	n/a	46.00	46.00	46.00	47.00	46.00	n/a	n/a	46.00	46.00	6.67 %	46.00	3.07
Jun-05	46.00	47.00	46.00	46.00	n/a	n/a	46.00	46.00	46.00	47.00	46.00	n/a	n/a	46.00	46.00	6.67 %	46.00	3.07
Jul-05	54.00	54.00	54.00	54.00	n/a	n/a	54.00	54.00	54.00	54.00	54.00	n/a	n/a	54.00	54.00	6.67 %	54.00	3.60
Aug-05	54.00	54.00	54.00	54.00	n/a	n/a	54.00	54.00	54.00	54.00	54.00	n/a	n/a	54.00	54.00	6.67 %	54.00	3.60
Sep-05	54.00	54.00	54.00	54.00	n/a	n/a	54.00	54.00	54.00	54.00	54.00	n/a	n/a	54.00	54.00	6.67 %	54.00	3.60
Oct-05	43.00	43.00	43.00	43.00	n/a	n/a	43.00	43.00	43.00	43.00	43.00	n/a	n/a	43.00	43.00	6.67 %	43.00	2.87
Nov-05	46.00	46.00	46.00	46.00	n/a	n/a	46.00	46.00	46.00	46.00	46.00	n/a	n/a	46.00	46.00	6.67 %	46.00	3.07
Weighted Avrg																100.0%		50.10

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Source

There are two sources for this metric:

Data	Source
Prices offered to residential customers	http://wcw.enr.gov.ab.ca/Rates-Current.html
Wholesale market forward rate	Forward Market Price Data

Table 4: Sources for retailers' market margin data.

	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05
3-Year	2.5	2.5	2.6	2.4	2.1	2.4

Table 5: Retailers' market margin (January - June 2005).

It is important to note that retailers' market margin is not the same as profit margin. The market margin is the difference between the retailer price and the 7x24 price available in the wholesale forward market. This margin will cover retailers' cost of acquiring load shaped supply (e.g. peak and off peak blocks), customers (sales and marketing), costs of billing and administration, and profit margin. The calculated forward price is indicative of wholesale supply costs; however, retailers might have acquired the energy at either lower or higher prices. Over time, this metric will give an indication to whether retailers are able to recover a higher or lower market margin in the Alberta market.

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3. Conclusion

Based on the pilot test, the Department plans to continue to collect the necessary data and present these metrics at least annually. In the beginning it is expected that the Department will make some adjustments and refinements to the calculation of the metrics. The Department will also endeavour to construct the metrics back through time, where data is available, in order to track the development over a longer time period.

You may contact Arne Johnsen-Sollos with the Alberta Department of Energy Arne.Johnsen-Sollos@gov.ab.ca to provide comments or suggestions on how these metrics can be improved or refined.

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